What's On Tap

The California Drinking Water Program Newsletter

January 2005

Message from the Director of the Drinking Water Program (DWP)

I am pleased to introduce you to the California Department of Health Services Drinking Water Program's (DWP's) inaugural statewide newsletter and I hope you find it useful. Our intention is to give you a "heads-up" on current and upcoming issues related to DWP activities and regulatory compliance, along with contact names and numbers and helpful internet links. We will issue the newsletter at least once a year, and possibly more, depending on resources available and issues that have arisen.

Drinking water systems are familiar with our field operations activities (field offices are divided into Northern and Southern California Branches), but may be less aware of the activities of our Technical Programs Branch, such as Proposition 50 administration. The table below is a simple layout of our organizational structure that highlights the broad range of activities conducted under the Technical Programs Branch.

Drinking Water Program (DWP)		
N. Calif. Branch	***S. Calif. Branch***	***Technical Programs Branch***
Region I includes Klamath, Lassen, Valley, and Sacramento District Offices Region II includes Mendocino, Sonoma, San Francisco, Santa Clara and Monterey District Offices	Region III includes Stockton, Merced, Visalia, and Tehachapi District Offices Region IV includes Hollywood, Central, Santa Barbara, and Metropolitan District Offices Region V includes Santa Ana, Riverside, San Bernadino and San Diego District Offices	Section I includes Operator Certification, Water Treatment Device Certification, Standards & Technology, Recycled water, Policy Development, and Treatment Technology Units Section II includes Safe Drinking Water State Revolving Fund, Small Water Systems, Technical Assistance, and Proposition 50 Units Section III includes Monitoring and Evaluation, and Health Assessment Units

For more information about our organizational structure and program activities, please check our website at http://www.dhs.ca.gov/ps/ddwem/technical/dwp/dwpindex.htm

This issue provides information on a broad range of topics:

Regulation Update

For a number of reasons beyond the DWP's control, the adoption process for regulations has been quite slow the last few years. The two main problems that result from the delayed adoptions are

- out-of-date regulations, and
- requirements to be in compliance with federal regulations that take effect before state adoption.

As you already know, these problems create some challenges for you in the regulated community, as well as for us in our oversight role.

Federal regulations already in effect that are delayed in our adoption process include the Disinfectants/Disinfection Byproducts (D/DBP) Rule and the Interim Enhanced Surface Water Treatment Rule (IESWTR), as well as the new Public Notification requirements. At this point, we cannot predict when these rules will be adopted by California, but once they've been distributed for public comment (hopefully before next summer), adoption is likely to follow within 4-5 months. To stay up to date on regulation status, check out this link:

http://www.dhs.ca.gov/ps/ddwem/publications/Regulations/regsdevelopment.htm

Later in this newsletter, we have provided an in-depth article on the Long-Term 1 IESWTR, which is another federal regulation that will be implemented before state adoption.

Other regulations in the adoption process, but not yet distributed for public comment:

- Arsenic MCL (federal rule adoption)
- Perchlorate MCL
- Radionuclide Rule Revisions (federal rule adoption)
- Secondary MCL Revisions
- Waterworks Standards Revisions

To better understand the process that regulations go through to get adopted, you can check out the presentation at

http://www.dhs.ca.gov/ps/ddwem/publications/Regulations/regpresentation%203-02.ppt

Compliance Tips

D/DBP Rule The D/DBP Rule requires TTHM and HAA5 monitoring in the distribution system along with monitoring of chlorine or chloramines residual. If you use a disinfectant in the distribution system, you will need to sample for chlorine or chloramine residuals at the same time and location as your bacteriological samples and submit the residual monitoring results on a summary sheet at least quarterly to your District Office. If you do not have a summary sheet, contact your District Office.

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Radionuclide Rule Revisions The Radionuclide Rule Revisions require community water systems to monitor Radium-228 for four quarters by 12/31/2007. The purpose of this federal requirement is to collect occurrence data to help USEPA decide whether to set an MCL for Radium-

228. You may composite the samples. However, if you analyze samples separately and the first two samples are less than 1 pCi/l (the reporting level), you do not need to collect the remaining two quarters. Radium-228 is a one time sampling event. There is no additional monitoring of Radium-228 needed. You may begin monitoring now or wait, but you must begin no later than the first quarter in 2007.

Reduced monitoring for radionuclides (except Radium-228) is allowed now for any water system that meets the monitoring criteria. You should contact your local DWP District Office to learn whether your sources are eligible for reduced monitoring.

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Arsenic Rule In January 2006, the federal Arsenic Rule, along with the state's rule if adopted, takes effect. Therefore, sample surface water sources by 12/31/06 and groundwater sources by 12/31/07 to assess the level of arsenic in each. If a level exceeds 0.010 mg/L, you will be required to collect three more quarterly samples and average the four quarters' results to determine compliance.

You do not need to wait to assess your compliance status. If your source water arsenic level is near or exceeds the new federal MCL, you should consider sampling your source quarterly for arsenic, pH, sulfides, hardness, silica, phosphate, sulfate, iron, manganese and vanadium. This data can assist you in determining your future compliance status to give you extra time to evaluate the best treatment process and design for your particular water.

Point-of-Use Devices (POU) for arsenic MCL compliance for small water systems.
The DWP is developing guidance that will be used to evaluate small water system proposals to use POU devices for arsenic MCL compliance.

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Federal Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR)

On January 14, 2002, the USEPA adopted the Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR) to improve public health protection through the control of *Cryptosporidium* and address risk trade-offs with disinfection byproducts. This rule builds on the existing Surface Water Treatment Rule and basically extends the requirements of the Interim Enhanced Surface Water Treatment Rule to systems serving fewer than 10,000 persons.

During 2004, the DWP District Offices sent letters to those systems that are required to comply with the LT1ESWTR, advising the water system of the applicable requirements. If you feel that the LT1ESWTR applies to your water system and you have not received a letter, please contact your local DWP District Office for assistance.

The tables below summarize the deadlines, requirements, and applicability of the LT1ESWTR. Additional information on the federal LT1ESWTR is available at http://www.epa.gov/safewater.

LT1ESWTR: Deadlines and Requirements

Deadline	***Requirements***
3/15/02	Construction of uncovered finished reservoirs is prohibited
7/1/03	By this date, a system serving 500 – 9,999 persons must have reported to the DWP: - Results of optional monitoring which show levels of TTHM <0.064 mg/L and HAA5 <0.048 mg/L, OR - That system has started disinfection profiling
1/1/04	By this date, a system serving fewer than 500 persons must report to the DWP: - Results of optional monitoring which show levels of TTHM <0.064 mg/L and HAA5 <0.048 mg/L, OR - That system has started disinfection profiling
7/30/04	System with 500 - 9,999 persons must complete a disinfection profile* unless DWP has determined it is unnecessary
12/31/04	System with <500 persons must complete a disinfection profile* unless DWP has determined it is unnecessary
1/15/05	System with < 10,000 persons must comply with the applicable LT1ESWTR requirements: (1) Cryptosporidium removal; (2) Combined filter effluent turbidity; (3) Individual filter turbidity; (4) Additional watershed control requirements for unfiltered systems

*Disinfection profile is a 12-month calculation of CT and log reduction.

LT1ESWTR: Applicability of Federal Provisions

Federal LT1ESWTR Provision	*Applicability*
Cryptosporidium Removal	All systems
Combined Filter Effluent Turbidity	Filtered systems using conventional, direct, or alternative filtration technology
Individual Filter Turbidity	Systems using conventional, direct, or other media filtration that have > 2 filters
Additional Watershed Control for Unfiltered Systems	Unfiltered systems
Disinfection Profile and Disinfection Benchmark	Community and nontransient-noncommunity water systems that: (1) filter using conventional, direct, slow sand, diatomaceous earth, or alternative filtration technology or (2) are unfiltered systems
Uncovered Finished Water Reservoir	All systems
Reporting and Recordkeeping	Filtered systems that use conventional, direct, slow sand, diatomaceous earth, or alternative filtration technology and unfiltered systems, as applicable

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DWP Database - What You Can Do to Ensure Your Data is Accurate

DWP maintains a database of chemical monitoring results from public water systems. This database includes chemical monitoring data from sources and treatment plants, but generally it does not include results of chemical samples from the distribution system, such as lead and copper, and does not include bacteriological samples.

After it receives and analyzes a sample from your source or treatment plant, your laboratory is required to send the results to the DWP electronically. The sample site and the date and time of sampling that you provided on the sample slip is included with the analytical results.

This information is received by the DWP's Monitoring and Evaluation (M&E) Unit in Sacramento by e-mail or by floppy disk. The M&E Unit screens the data for errors, missing entries, and duplicate information and immediately notifies the laboratory of any problems. The good data is then uploaded to the database and the laboratory receives confirmation of this data transfer. Entered data is usually available through the database to the DWP field offices the next day.

The most important thing you can do to ensure accurate data is to complete all the information required on the sample slip with special attention to the source identity. Each source has its own primary station (PS) code to identify it in the database. The laboratories have access to a library of these PS codes for all public water systems. They use your description of the source to select the proper PS code.

The term "PS code" in the DWP database means the source of the sample or location of the sample point. For example, it could be the raw water at the Well No. 1 wellhead, the chlorinated water just downstream of the Well No. 1 wellhead, or the water just downstream from a treatment plant for removal of iron for Well No. 1 just before it enters the distribution system. Although the water in the samples from each of these locations is from the same well, each sample has its own PS code. Therefore, if you identify a sample point as simply "Well No. 1", there could be some confusion. If you identify a sample point as "Well No. 1, raw water", there should be no confusion.

The accuracy of your PS code will be even more critical in the near future because the DWP has recently developed a system that automatically generates a chemical monitoring schedule for each source based on the analytical results in our database. Therefore, data that does not get credited to the proper source will be reflected as a delinquency in your monitoring schedule.

NOTE: View the 6-month projected monitoring schedule for each of your sources at: http://www.dhs.ca.gov/ps/ddwem/EDT/monitoringschedule/default.htm

If you or your laboratory find an error in the chemical data submitted to the DWP, it can be corrected. All corrections must be made directly through the M&E Unit, preferably by e-mail. The e-mail should identify the error and provide justification for the changes. If the corrected data is resubmitted using the normal electronic submittal process, it will be rejected

as duplicate data. Your local DWP District Office can help you with corrections and/or put you in touch with the M&E Unit.

Finally, it is evident that the proper sampling points are critical. Do coordinate the specific locations for chemical sample collection with your local DWP District Office. You can also obtain the names, PS, and numeric codes for each of your sources. This should help eliminate any misinterpretation by the laboratory.

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"Action Levels" are Now Called "Notification Levels"

As of January 1, 2005, "action levels" (health-based advisory levels used by the DWP since the early 1980s for drinking water contaminants that lack MCLs) were relabeled "notification levels". This change is particularly important for any water system with a source that exceeds a "notification level" or MCL due to the new notification requirements in Health and Safety Code Section 116455.

A water system is now required to notify the local governing agency (e.g., city council, county board of supervisors, or both) if a notification level or MCL is exceeded in either a ground or surface water source. Previously this law only applied to groundwater sources. The law also has added some specific requirements for wholesalers and retailers, and establishes the new term "response level" to identify the level at which DWP would recommend source removal. See the link below for more information:

http://www.dhs.ca.gov/ps/ddwem/chemicals/AL/Statutoryrequirementsforactionlevels.pdf

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Money, Money, Money – or How Can I Get Some Financial Help?

CFCC The California Financing Coordinating Committee (CFCC) is a group of six state and federal agencies and departments that work together to offer coordinated and streamlined access to infrastructure financing for California's local communities. The CFCC members provide potential borrowers and grant recipients with an efficient and effective infrastructure funding mechanism.

Funding Fairs For a number of years, the CFCC has organized a series of "funding fairs" at four to eight locations throughout California. These funding fairs bring experts on the CFCC members' funding programs, and provide up-to-date program information to interested audiences at convenient local sites.

Tentative Funding Fair Schedule for 2005

- EL CENTRO - February 16
- MERCED – March 9
- BAKERSFIELD – March 10
- SEASIDE (CSUMB) – April 13
- McCLOUD - May 11
- SACRAMENTO – June 15

The participating agencies in the CFCC with their major programs are:

California Infrastructure and Economic Development Bank
- *Infrastructure State Revolving Fund Program*
- *Revenue Bond Financing Programs*
- *Rural Investment Tax Exemption (RITE) Program*

California Department of Water Resources
- *Water Conservation Bond Law of 1988 – New Local Water Supply Loans*
- *Prop 13 (2000) Agricultural Water Conservation Loans*
- *Prop 13 – Infrastructure Rehabilitation Grants*
- *Prop 50 (2002) Desalination Grants*
- *Prop 50 Water Use Efficiency Grants*
- *Prop 50 Integrated Regional Water Management Grants*

State Water Resources Control Board
- *Clean Water State Revolving Fund Program*
- *Small Community Grants*

U.S.D.A. – Rural Development /Rural Utilities Service
- *Rural Development – Rural Housing Service*
- *Rural Utilities Service*
- *Rural Business Cooperative Service*
- *Communities Facilities Funding Programs*

California Department of Health Services
- *Safe Drinking Water State Revolving Fund Program*
- *Source Water Protection Funding*
- *Prop 50 -- Water Security Funding*
- *Prop 50 -- Safe Drinking Water Funding*
- *Prop 50 – Special Technology Funding*
- *Other DHS water system funding programs*
- *Water Recycling Funding Program*

Ca. Dept. of Housing and Community Development
- *Community Development Block Grant Program (non-entitlement) [Funding for Housing, Community Facilities, Public Services]*

Proposition 50 Grant Program

The DWP has announced a request for pre-applications for nine new grant programs funded by Proposition 50, the Water Security, Clean Drinking Water, Coastal and Beach Protection Act of 2002. Prop 50 was developed to address water security, water quality, and water quantity issues. Approximately $430 million is available to public water systems through these grant programs.

The funds will be distributed over four years, and pre-applications will be solicited annually for four years beginning in 2004. The first round of pre-applications was due December 1, 2004. The second round will be due in December 2005.

The Prop 50 funds administered by the DWP are divided into nine narrowly-defined grant programs. The table below lists the grant programs, eligible applicants, and funding available.

Refer to the DWP Prop 50 webpage for more information. http://www.dhs.ca.gov/ps/ddwem/Prop50/default.htm).

DWP Prop 50 Grant Programs

SECTION	GRANT PROGRAM	ELIGIBLE APPLICANTS	FUNDING AVAILABLE
Construction Projects			
3	Water Security	Public water systems	$ 47 million
4a.1	Small Community Water System Facilities	Small community water systems[1]	$ 12.5 million
4a.3	Community Water System Monitoring Facilities	Community water systems	$ 12.5 million
4a.4	Drinking Water Source Protection	Public water systems	$ 12.5 million
Construction Projects			
4a.5	Disinfection Byproduct Treatment Facilities	Public water systems	$ 12.5 million
4b	Southern California Projects to Reduce Demand on Colorado River	Public water systems serving Southern California counties[2]	$261 million
6c	UV and Ozone Disinfection	Public water systems	$ 23 million
Demonstration Projects and Pilot Studies			
4a.2	Contaminant Treatment and Removal	Public water systems	$ 12.5 million
6b	Contaminant Removal	Public water systems	$ 23 million

Notes: 1. Community water systems serving ≤ 1,000 service connections or ≤ 3,300 population

2. Water systems with service area entirely or partly within San Diego, Imperial, Riverside, Orange, Los Angeles, San Bernardino, Santa Barbara, or Ventura counties.

Other state agencies are also administering grants from Prop 50. For more information, go to:

- State Water Resources Control Board website (http://www.swrcb.ca.gov/funding/index.html)
- Department of Water Resources website (http://www.grantsloans.water.ca.gov/)
- Resources Agency website (http://resources.ca.gov/bonds_prop50.html)
- California Bay-Delta Authority (CALFED) website (http://calwater.ca.gov/GrantOpportunities/GrantInformation.shtml).

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Operator Certification Expense Reimbursement Grant

(Financial Assistance for Small Water System Operators)

The California Department of Health Services, in partnership with Cooperative Personnel Services (CPS), is pleased to announce the availability of federal funds to assist small water system operators to comply with federal and state requirements. The Expense Reimbursement Grant Program, provided under a grant from the United States Environmental Protection Agency, provides

financial assistance of approximately $8 million to Small Water System Operators in California for attending training to qualify for and take the operator certification exams, and to complete continuing education requirements for renewing certifications. This program operates on a reimbursement basis and is intended to provide opportunities to Small Water System Operators at little or no cost. CPS conducts the necessary administrative functions to assure that Small Water System Operators are reimbursed for eligible specialized training courses, operator certification examinations, operator certification fees and continuing education courses.

To be eligible, you must meet the following criteria:

- You are employed by a public water system serving a population of 3,300 or less
- Your system is a permitted community or non-transient/non-community public water system
- You need to take operator certification or recertification courses and/or tests.

Please visit the Small Water Systems (SWS) website at http://www.cps.ca.gov/tlc/sws to download an application and participant handbook. If you have additional questions, call SWS staff toll free at (866) 867-3594.

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2005 Security Update

Every community water system serving greater than 3,300 people should have updated its Emergency Response Plans (ERP) to include terrorist and contamination events, and sent a copy to its District Office. To assist California drinking water utilities in the update, the DWP developed guidelines, which you can download from: http://www.dhs.ca.gov/ps/ddwem/Homeland/default.htm Certification of the small water system ERP update was due to the USEPA by December 31, 2004 (medium and larger water systems ERP update deadlines were June 1, 2004 and December 31, 2003, respectively).

More information on the Bioterrorism Act requirements for drinking water systems is available on the USEPA website: http://cfpub.epa.gov/safewater/watersecurity/index.cfm

Since you have completed your Vulnerability Assessment and Emergency Response Plan, you should be focusing on training your staff and exercising your plan through tabletop exercises and drills. Training will be provided statewide to assist water systems in developing and facilitating the exercises. Please refer to the DWP water security website throughout the year for information.

The California Health Alert Network (CAHAN) will be rolled out to public water systems within the next year. CAHAN is a secure portal where immediate notification of hospitals, doctors, county health and state health departments can be implemented. The DWP is in the process of registering 2,000 public water systems so that immediate notification of water system personnel can be broadcasted if a water contamination event or natural disaster occurs or is threatened. In addition, secure information will be provided on the secure website that may be accessed by water systems for water security information.

The DWP will also be working with the California Department of Health Services (CDHS) Sanitation and Radiation Laboratory (SRL) on emergency water quality sampling kits that will be used if a contamination event occurs. Kits will be stored and maintained at the DWP District Offices and possibly County Health Departments. If a credible event occurs, a water system will call the DWP District Office and request a kit to be sent to the contamination event. The DWP will provide the kit and authorize the sample to be sent to the SRL laboratory and Lawerence Livermore National Laboratory if necessary.

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Story from the Field (Offices, that is)

The California Waterworks Standards require screens on overflows for distribution reservoirs. If your overflow is a short length of pipe that stubs out from the tank, it is obvious that a screen is important to keep out insects and birds. But how important is it to screen your overflow when your overflow pipe travels hundreds of feet over hill and dale before it discharges? I mean, come on, what bird, insect, or animal is going to negotiate its way several hundred feet up a 10-inch diameter pipe? The answer, my friend, is "blowing in the wind".

If you think the reasons that DWP engineers give you for screening your overflow lines stink, try this one! Back in November 2000, the operator of a small water system in Siskiyou County contacted our Redding Field Office to inform us that he had gotten a couple of calls regarding a skunk-like odor in the water. He called us because he remembered a similar situation a few years ago and wondered if we had determined the cause of that problem. We checked our notes and found that in May 1996, they had a similar problem and the odor was also evident at the storage tank, but the cause was never determined. The operator at that time ended up chlorinating for a while until the odor disappeared. Based on this, the current operator noted that he would check out the storage tank. We also suggested he sample the water at the wellhead.

Later that day the operator called back. He had detected the skunk odor at the storage tank and inspected the tank. Everything appeared okay but when he checked the tank overflow/drain pipe, which daylights quite a ways down the hill, he noticed that the screen at the discharge end of the pipe was off. He did not see anything in the pipe or any evidence of animals and did not detect a skunk odor. He decided to open the tank drain and flush out the pipe and ended up flushing out two skunks.

It appears that conditions were right at the time, for the overflow/drain pipe to create a stove pipe effect, which allowed air to flow from the overflow discharge back to the tank, carrying the skunk odor. Apparently, the odor is somewhat soluble in water since users downstream could detect it. The operator ended up installing a mechanical flapper on the overflow discharge. The flapper should be more reliable than the screen and should also eliminate airflow through the pipe.

Lesson learned: A screen on the ground is worth two skunks in the pipe.

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Useful Links

You can find further information regarding the above at the following websites:

- Department of Health Services: www.dhs.ca.gov/ps/ddwem
- Environmental Protection Agency: www.epa.gov/safewater
- California Rural Water Association: www.calruralwater.org
- Rural Community Assistance Corporation: www.rcac.org
- National Rural Water Association: www.nrwa.org
- Association of State Drinking Water Administrators: www.asdwa.org
- American Water Works Association: www.awwa.org